AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICE CURRENT.

" *O fortunatos nimium sua si bona norint*
" *Agricolas.*" . . . . . VIRG.

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AGRICULTURE

Extract from Darwin's Phytologia.

Economy of Vegetation.

THE GROWTH OF SEEDS, BUDS, AND BULBS.

I. 1. SEEDS *resemble eggs.* 2. *The embryon is of different maturity. The leaves visible in some seeds.* 3. *Why the plumula ascends and the root descends. Is nourished by the seed-lobes, by the fruit. Becomes a dwarf if deprived of them. Melons and cucumbers are too luxuriant. Turnip-seed should be new.* 4. *Seeds have hard shells, have acrid rinds with bitter or narcotic juices, but pure starch may be procured from them.* 5. *Umbilical vessels, and roots of seeds Annual, biennial, and perennial plants. Reservoirs of nutriment in their roots. All plants are biennials. Bulbs and buds succeed each other many times before they flower.* 6. *Wheat. Stems and roots round the first joint. Has no nectory Is greatly increased by transplanting.*

I. 1. HAVING treated of the physiology, we now step forwards to consider the economy of vegetation, as far as it may serve the purposes of agriculture and gardening.

After the production of the seed, or vegetable egg in the the pericarp of flowers, and its ensuing impregnation by the farina of the anthers shed upon the stigma, a coagulated point appears on the seed-lobes according to the observations of Spallanzani, like the cicatricula on the yolk of the egg.

The seed continues to grow in the pericarp sustained by adapted secretions from the vegetable blood, which is previously oxygenated in the bractes or floral leaves of many plants; in others the seed is itself in an air-vessel probably for that purpose, as in staphylea, bladder-nut, and tagetes, African marygold. At the same time a reservoir of nutriment is secreted, and deposited in the seed-lobes or cotyledons, which are single ones in the seeds of palms, grasses, and lilies; though twofold in those of most other herbs and trees; whence the strictest analogy exists between seeds and eggs.

2. In some seeds, when they leave the vegetable uterus this embryon is much more mature than in others. In the seeds of the nymphæa nelumbo the leaves of the future plant were seen so distinctly by Mr. Ferber, that he found out by them to what plant the seeds belonged. The same in the seeds of the tulip tree, liriodendron tulipiferum. Amœn. Acad. V. VI. No. 120. And Mr. Baker asserts, that on dissecting a seed of trembling grass, he discovered by the microscope a perfect plant with roots sending forth two branches, from each of which several leaves or blades of grass proceeded Microsc. Vol. I. p. 252. While in other seeds the corculum or heart only of the seed is distinctly visible, as in the kernel of the walnut, and the seed of the garden-bean. So in the animal kingdom the young of some birds are much more mature at their birth than those of others. The chickens of pheasants, quails, and patridges, can use their eyes, run after their mothers, and peck their food, almost as soon as they leave their shell; but those of the linnet, thrush and blackbird, continue many days totally blind, and can only open their callow mouths for the offered morsel.

3. When the seed falls naturally upon the earth, or is buried artificially in shallow trenches beneath the soil, the first three things necessary to its growth are heat, water, and air. Heat is the general cause of fluidity, without which no motion can exist; water is the menstruum, in which the nutriment of vegetable and animal bodies is conveyed to their various organs; and the oxygen of the atmosphere is believed to afford the principle of excitability so perpetually necessary to all organic life; and which renders the living fibres both of the vegetable and animal world obedient to the stimuli, which are naturally applied to them.

Whence we may in some measure comprehend a difficult question: why the plume of a seed sowed upon or in the earth, should ascend, and the root descend, which has been ascribed to a mysterious instinct; the plumula is stimulated by the air into action, and elongates itself, where it is thus most excited; and the radicle is stimulated by moisture, and elongates itself thus, where it is most excited, whence one of them grows upwards in quest of its adapt-object, and the other downward.

The first source of nutriment supplied to the seminal embryon, after it falls from the parent plant, exists in the seed-lobes, or cotyledons, which either remain beneath the earth, and are permeated by the umbilical vessels of the embryon plant, which absorb the mucilaginous, farinaceous, or oily matter deposited in them, as the bean, pisum; or the seed-lobes rise up into the air along with the young plant, as in the kidney-bean, phaseolus, become seed-leaves, and serve both as a nutritive and respiratory organ. These cotyledons or seed-lobes generally contain mucilage, as in quince-seed; or starch, as in wheat; or oil, as in linseed.—Some of these nutritive materials are probably absorbed unchanged, or dissolved only by the moisture of the earth; others are converted in to sugar partly by a chemical process, and partly by the digestive powers of the young plant, as appears in the process of germinating barley, and converting it into malt; these reservoirs of nutriment are hence perfectly analogous to the white of the egg, a part of which is probably absorbed unchanged by the lymphatics of the young embryon, and a part of it converted into a sweet chyle for the nourishment of the chick, when it has acquired a stomach.

If the seed be deprived of these cotyledons, soon after the root appears, it will continue to grow, but with less vigour, and is said to produce a dwarf plant from three to nine times less than the parent. Hence the seeds of plants, which are liable to produce too vigourous roots, and thence have not time to ripen their fruits in the short summers of this climate, or which fill our hotbeds with too luxuriant foliage, as melons, and cucumbers, should in this climate be kept three or four years; by which part of the mucilaginous, or farinicious, or oily matter of the cotyledons becomes injured or decayed, and the new plant grows less luxuriantly.

Another source of nutriment for the seminal embryon of many plants exists in the fruit, which envelopes the stone or seed-vessel, after the growing fetus has burst into confinement, and so far resembles the yolk of the egg, which becomes a nutriment to the chick, after it has consumed the white, and eloped from its shell.

When mature fruit, as an apple or a cucumber, falls upon the ground, it supplies as it ripens or decays, a second source of nourishment, which enables the enclosed seeds to shoot their roots into the earth, and to elevate their stems with greater vigour. Hence fruits generally contain a saccharine matter, or juices capable of being converted into sugar, either by a spontaneous chemical process, as in baking sour apples; or by a vegetable process, as in those sour pears, which continue to ripen for many months, both before and after they are plucked from the tree, as long as life remains in them; that is, till they ferment or putrify; and lastly, by the digestive power of the young embryon, as above mentioned.

If the seed be deprived of the fruit, it will indeed vegetate, but with less vigour. Hence those seeds which are liable to produce too vigorous shoots for this climate, as the seeds of melons and cucumbers, should be washed clean from their pulp, before they are hoarded, and preserved three or four years before they are sown in hot-beds. But those seeds, which are sown late in the season for the purpose of producing winter fodder, as the seeds of turnips, should be collected and preserved with every possible advantage; and on this account new seed is much to be preferred to that which has been long kept.

4. Many seeds when mature are dispersed far from the parent tree, for the purpose of their growth, by various contrivances, as mentioned in Sect. VII. 2. 5. Some of these are surrounded with hard shells, which are impenetrable by insects, as they lie on the earth to take root, as peaches, nectarines, nuts, cocoa-nuts Other seeds are furnished with an acrid covering to prevent the depredation of insects, as the peel of oranges, and lemons, the outward husk and inward rind of walnuts, and of cashew-nuts, and the skin of mustard and rape seed; other seeds for the same purpose abound with bitter or narcotic juices, as the horse-chesnut, acorn, apricot,

cherry, many of which supply materials to the shops of medicine, and may supply nutriment in times of scarcity; as the starch, which they contain, may be procured by grating them into cold-water, and washing away the mucilage, and the poisonous material, which adheres to it, or which is soluble in water.

5. The plumula of the seed or embryon plant, absorbs the nutriment laid up for it in the seed-lobes by vessels, which permeate them for that purpose, and have been termed umbilical vessels; and afterwards shoots its roots down into the fruit, or into the earth, in search of other nourishment; and expands its leaves in the air as an organ of respiration.

Those plants, which are usually termed annuals, produce their flowers and die in the same year in which their seeds are sown: as barley, oats, and a variety of garden flowers. These nevertheless in accurate language should be termed biennials, because the seed in this climate is produced in one summer; and the embryon plant becomes mature in the next; as the seed is generally preserved in our granaries or seed-boxes, and not committed to the ground till the ensuing spring; for many of these vegetables are not natives of this climate, and would perish if the seeds were sown in autumn, when it is naturally scattered on the earth.

Those which are usually termed biennial plants, differ from the former, first in the time of sowing the seed, which is generally in the early autumn, as soon as it is ripe, as of turnips, carrots, wheat; and thus these produce their flowers in the second year after the seed is sown, which has given them the name of biennials.—Many of these plants, perhaps all of them, lay up a reservoir of nutritious matter during the summer or autumn in their roots. This nutriment is secreted from the vegetable blood, which is previously oxygenated for that purpose in the large leaves, which generally surround the caudex of the plant, as in turnips and carrots. These leaves survive the winter in many plants, which the more succulent stems probably would not; and the nutriment deposited in the root is expended in the growth of the stem and the production of seed in the ensuing spring. As in these vegetables one of our summers is too short for their growth from the seed to the fructification; and it is for this reservoir of nutriment that these plants are generally cultivated.

But those plants, which are termed perennial, when first raised from seed, are many of them some years before they produce flowers. Some of them form bulbous roots, as the tulip, hyacinth, onion, which are three or four years before they flower, during which time I believe all the bulbs die annually, producing one larger than that of the preceding year, and perhaps some smaller ones, all which annually increase in size till they flower. The same occurs in potato-roots raised from seed, which do not flower as I am informed till the third year, and then only those which seemed of stronger or forwarder growth.

Other perennial plants have palmated or branching roots; in some of these, as in seeding apple-trees, the flower is said not to appear till ten or twelve years after the seed is sown; the buds nevertheless annually dying and producing other buds over them, perhaps more perfect ones, as they acquire after a few years the power of producing sexual organs, and in consequence a seminal progeny. In these perennial herbaceous plants and trees a magazine of nutriment is provided in their roots or sap wood, to supply the new buds, which are to grow in the ensuing spring.

Whence it appears, that all the vegetables of this climate may be termed biennial plants; as the seeds of some, and the buds or bulbs of others are produced in one summer, and flourish and die in the next: those which are called annuals or biennials leaving behind them a future progeny of seeds only; those, which are termed perennial herbaceous plants, leaving behind them the first year or two a progeny of bulbs or root-buds only, and afterwards a progeny of seeds also; while the perennial aborescent vegetables leave behind them a progeny of buds only for several successive years, and afterwards a progeny of both buds and seeds.

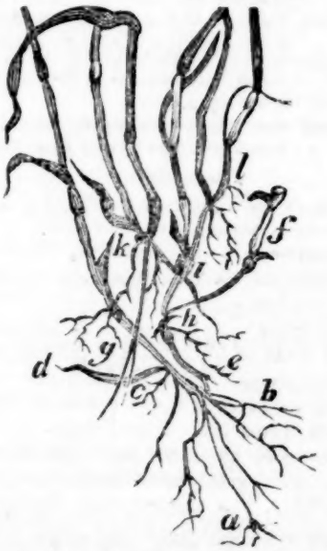
Thus the bulb from a tulip-seed produces a more perfect bulb annually, till it flowers, I believe, on the fifth year. It then produces a flower, and also one perfect bulb, which flowers the next year; and some other less perfect bulbs, which are succeeded by more perfect ones annually, till they also flower. Whence I conclude, that no tulip bulb flowers till the fourth or fifth generation.

It is probable, that a similar circumstance occurs in other vegetables, as in apple trees; and that the buds of these do not produce sexual organs, and a consequent seminal progeny, till the twelfth or fourteenth generation of the bud from the seed; each of those buds nevertheless producing one principal bud annually more perfect than itself, and many lateral buds less perfect than itself; that is, at a greater distance from that state of maturity which enables it to form a flower. This art of distinguishing the greater or less maturity of buds is a matter of great importance in the management of fruit-trees, as in many of them the central bud becomes a spur one year, and flowers the next; and the lateral buds one or two years afterwards, as will be mentioned in Sect. XV. on the production of fruit.

6. In wheat there exists about the caudex a reservoir of nutritious juices deposited in the autumn for the purpose of raising the stem in the ensuing spring like that of turnips and carrots; but which is attended with other circumstances peculiar I suppose to the grasses, and other plants, which possess only one cotyledon or seed lobe. The early leaf, which surrounds the first joint of the stem, withers as the spring advances; in which joint it had previously deposited a saccharine juice, and probably some new embryon buds were at the same time generated in the caudex; for through this withered leaf, which surrounds the first joint of the stem within the earth, a circular set of new stems issue adhering to it, and a circle of roots below them adhering to the caudex or base of it. These new buds rise into air, and shoot their roots into the earth; and in this manner many stems are produced in the spring from one seed sowed in the autumn preceding: though in some kinds of wheat the whole process of the seed rising from earth, and producing other stems round the principal one, and of ripening its seeds, may be performed in one summer even in this northern climate.

Another peculiarity attends the growth of wheat and other grasses; the leaf, which surrounds and strengthens the stem by its foot-stalk, deposits at every lower joint a saccharine matter for the purpose of nourishing the ascending part of the young stem; and in the uppermost joint, I suppose, to serve instead of honey for the stamens and stigmas, as their flowers have no visible nectary; and as the scales of the flower may with good reason be esteemed a calyx rather than a corol, according to the opinion of Mr. Milne: as these scales attend the seed-vessel to its maturity, which the corol does not. Milne's Botanical Dict. Art. Gramina.

Owing to this secretion of saccharine matter at the foot-stalk of every leaf, and its collection round the joints of grasses, it happens that when these joints are surrounded with moist earth, and are placed but a certain depth from the air, that new buds will put forth round these joints, and strike their roots into the soil.—Whence the agrarian husbandmen may derive great advantage from transplating his wheat, after it has produced a circle of new stems from the first joint of the straw; for if he then parts and replants them an inch or two deeper in the ground, so as to cover the first joint of each of these additional stems, he may multiply every one of them four or six times, and thus obtain twenty or thirty stems from one original seed. See No. III. 1 and 7. of this section.



A transplanted root of wheat described in articles 3 to 7—*a* the seminal root, *b* the coronal root, *a b* the elongated caudex, *c g* the first stem, *c d* the first leaf, *e f* a secondary stem. All these existed before transplantation. The secondary stem was then cut off at *f*, and the plant was buried in the soil as deep as the letter *f*, where it was cut off. Afterwards the stem which was lopped, had put forth a new caudex or root-scoin at *h*; which had produced three new stems at *i*; and other new ones, as it approached nearer the surface, at *k* and *l*. As these leaves advanced into the air, the latter new stems were produced by the caudexes of them.

(To be continued.)

Philadelphia County
Agricultural Exhibition and Fair.

In conformity with an act of the Legislature of Pennsylvania, the Philadelphia Society for promoting Agriculture will hold their First Annual Exhibition and Fair on the 4th and 5th days of June next, at the houses of John Elliott and George Ludwick, in Blockley Township, when the following premiums will be distributed.

NEAT CATTLE.

For the best bull, not more than 4 nor less than 2 years old	$50
next best	20
next best	10
For the best Bull Calf, not more than 12 nor less than 6 months old	30
next best	15
next best	10
next best	5
For the best Cow, not more than 7 nor less than 3 years old	50
next best	20
next best	10
For the best Heifer, not more than 3 nor less than 1 year old, with or without Calf	20
next best	10
next best	5
next best	3
For the best Heifer, not more than 3 years old, which shall have calved twice, reference being had to her offspring	40
For the best Heifer, not more than 12 nor less than 6 months old	20
next best	10
next best	5
next best	3
For the best Bull of Teeswater or Durham blood not more than 2 nor less than 1 year old	20
For the best Bull, of Devon blood, not more than 2 nor less than 1 year old	20
For the best Heifer, of Teeswater or Durham blood, not more than 3 nor less than 1 year old	20
For the best Heifer, of Devon blood, not more than 3 nor less than 1 year old	20

SHEEP.

For the best Ram, not more than 3 nor less than 1 year old	20
next best	5
For the best Ewe, not more than 4 nor less than 1 year old	10
next best	5
For the best Ram Lamb, not more than 12 nor less than 3 months old	5
next best	4
next best	3
next best	2
For the best Ewe Lamb, not more than 12 nor less than 3 months old	4
next best	3
For the best Ram, of Dishley blood, not more than 4 nor less than 1 year old	20
For the best Ewe, of Dishley blood, not more than 4 nor less than 1 year old	10
For the best Ram, of Southdown blood, not more than 4 nor less than 1 year old	20
For the best Ewe of Southdown blood, not more than 4 nor less than 1 year old	10
For the best Merino Ram, not more than 4 nor less than 1 year old	10
For the best Merino Ewe, not more than 4 nor less than 1 year old	7
For the best Broadtail Ram, of Tunisian blood, not more than 4 nor less than 1 year old	20
For the best Broadtail Ewe, of Tunisian blood, not more than 4 nor less than 1 year old	10

HORSES.

For the best Stallion, fitted for the road or draught, not more than 12 nor less than 3 years old	$50
For the best brood Mare, not more than 7 nor less than 4 years old	50

SWINE.

For the best Boar, not more than 4 nor less than 1 year old	$10
For the best Sow, not more than 4 nor less than 1 year old	5
For the best Pigs, not less than five in number not more than 9 nor less than 3 months old	5

OXEN.

For the best yoke of Working Oxen, not more than 7 nor less than 4 years old (*reference* being had to their PERFORMANCE IN THE PLOUGH)	$5
For the best Ox, not more than 8 nor less than 5 years old	15
For the best Steer, not more than 5 nor less than 1 year old	10

☞ All Breeding Animals which shall have received premiums at the Exhibition, will be required to remain in Pennsylvania one year thereafter.

BUTTER AND CHEESE.

For the best fresh Butter, not less than 25 lbs. made in Pennsylvania	$10
For the best Cheese, not less than 100 pounds, made in Pennsylvania	10
For the best preserved Butter, not less than 30 pounds, made in Pennsylvania, and which shall have been kept at least 3 months	10
For the best Maple Sugar, not less than 100 lbs	8
For the best Pot or Pearl Ash, not less than 200 pounds	8

IMPLEMENTS OF HUSBANDRY AND USEFUL INVENTIONS.

Premiums will be distributed for improvements in Ploughs, Harrows, Fans, Drills, Chaffcutters, Threshing Machines, and for such inventions or discoveries as shall tend to facilitate the operations of Husbandry, advance the cultivation of the soil, or add to the convenience or comforts of life.

HOUSEHOLD MANUFACTURES.

For the best Linen Cloth (for shirting or sheeting) 1 yard wide, not less than 25 yards long	$20
second best	10
For the best Linen Diaper, 5-8 wide, not less than 30 yards long	10
For the best Flannel, 7-8 wide, not less than 40 yards long	10
second best	5
For the best Carpeting, 4-4 wide, not less than 30 yards long	10
second best	5
For the best Coating, 3-4 wide, not less than 20 yards long	10
For the best Woollen Cloth, 3-4 wide, not less than 20 yards long	8
second best	4
For the best double milled Kersey, 3-4 wide, not less than 20 yards long	8
second best	4
For the best pair of Blankets, not less than 8-4 wide and 10-4 long	5
second best	3
For the best Woollen Knit Hose, not less than 6 pair in number	3
second best	2
For the best Cloth made of Hemp, 1 yard wide not less than 25 yards long	5
For the best Man's Hat, made of grass, straw chip, or other vegetable material	5
best Woman's ditto	10
second best ditto	5

☞ All articles of household manufacture, for which premiums will be awarded, must be the product of the city or county of Philadelphia.

CROPS.

The following Premiums for Crops will be distributed at the Annual Exhibition of 1823.

For the largest quantity of Flax on one acre	$50
best crop of Wheat on one acre	25
best crop of Indian Corn on one acre	50
best crop of Barley on one acre	20
best crop of Potatoes on one acre	20
best crop of Mangel Wurtzel on 1 acre	20
best crop of Pumpkins, or Squashes on one acre, fitted to withstand the winter	30
best crop of Cocksfoot (or Orchard Grass) with or without clover	25

It is to be distinctly understood, that in every case when the Board of Directors shall consider the object presented unworthy of distinction, they reserve to themselves the right of rejecting it, although by literal construction it should be entitled to reward—and that in all instances where Premiums shall be demanded, they will require such evidence as to them shall be satisfactory

As many of the most enterprizing agriculturists of the adjoining states are expected to attend the Exhibition, the farmers of Pennsylvania are respectfully invited to send to the Fair such FINE animals as they shall be disposed to sell—ample provision having been made for the accommodation of all that are likely to appear.

STEPHEN DUNCAN,
JOHN HARE POWEL,
MANUEL EYRE,
WM. MASON WALMSLEY,
REUBEN HAINES.
Committee.

At a special meeting of the Philadelphia Society for promoting Agriculture, held on the 5th December, 1821—it was resolved that a committee be appointed at the next annual meeting, to consist of ten members, to constitute a Board of Directors for the execution of the provisions of an act, entitled "An Act for the promotion of Agriculture," &c.; who shall have power to hold an annual meeting for the distribution of prizes for the improvement of Farm Stock, as well as for the advancement of Agriculture and Household Manufactures; and that the President and Vice Presidents, Secretary and Treasurer shall, ex officio, be members thereof; that the Board of Directors shall be equally divided into committees, to be called the Committees for Stock and Manufactures—that with the Stock Committee shall rest all matters connected with, arising out of, or necessary for the distribution of premiums for Stock, and Farming Implements—that with the Committee for Manufactures shall rest all matters connected with, arising out of, or necessary for the distribution of premiums for Manufactures—that with the whole Board, or with such members thereof as they shall appoint, in like manner shall rest, all matters connected with, arising out of, or necessary for the distribution of premiums for Products of the Soil.

Extracted from the minutes.
ROBERTS VAUX, *Secretary.*

☞ John Scott, of Edinburgh, having bequeathed Four Thousand Dollars of the funded 3 per cents stock of the United States to the corporation of Philadelphia, in order that the interest and dividends thereof be laid out in Premiums, to be distributed among ingenious men and women who make useful inventions, accompanied by a copper medal inscribed, "*To the most deserving*"—and whereas the Select and Common Councils of the city of Philadelphia, by an ordinance passed the 22d day of November, 1821, have authorized the Philadelphia Society for promoting Agriculture to carry into effect the legacy of John Scott—it was resolved that the Board of Directors appointed for the execution of the provisions of an Act for the promotion of Agriculture, be the Committee to fulfil the intentions of the said John Scott.

ON HEDGES.

[Communicated for the American Farmer by G. W. Jeffreys.]

BOSTON, 12th Aug. 1817.

My dear sir,

I duly received your favor of the 15th ultimo. Your plan of commencing a systematic planting of live hedges is equally wise and patriotic; useful and ornamental in itself, excellent as an example.

In reply to your inquiries, I state that my experiments in hedging have been successful to my utmost wishes—and I am continuing to plant them. I have used the Washington, or American Thorn as it is called, which I obtained at Thomas Maine's Nursery, near Georgetown in the District of Columbia—and the English white Thorn, which I imported in seed from London. The former is more beautiful, and grows more rapidly—but its tendency is to spire upward instead of throwing out horizontal branches—for a strong fence, to resist cattle, I think he English white Thorn preferable My mode of cultivation is simple—first year cultivate the hedge row in potatoes—enriching, deepening, pulverizing the ground six or 8 feet wide—then plant the hedge in a straight line, the plants eight inches apart protect them from cattle—cultivating potatoes at least four feet on each side, and carefully keeping your plants clear of weeds when hoeing the potatoes—taking care to have a nursery of plants of equal age with those in the hedge so as always to be able to fill out deficiencies with plants of the same age—this is very important. In trimming encourage the lower horizontal branches by shaping it sloping, pyramidially on each side.

I am much impressed however with the idea of cedar hedges—an account of them may be found in a work, entitled Arator—written by John Taylor, of Caroline county, Virginia. A work, which contains more useful hints, (although written in a very obscure style) for farmers in your part of the United States, I think, than any work extant—were I a southern farmer, I should follow his suggestions, more implicitly than those of any person with whose experience I am conversant. The work may be obtained at Georgetown, District of Columbia, or at Richmond.

With respect to *soiling*, it is a subject embracing so great a variety of considerations, that I cannot persuade myself to enter upon its elucidation. It would require a recapitulation of facts and reasonings so numerous, and minute, that I am sure your patience would fail to read if mine did not to write all the particulars which a full answer to your queries would require.

A great many hints on this and almost every other subject connected with farming and agricultural economy, may be found in "Bordley's Essays on Agriculture," a work easily to be obtained in Philadelphia, and worthy to have a place in every farmer's library.

Soiling if commenced ought to be at first on a small scale—trials of plants which may be made to follow each other in succession should be made—what would be right in the climate here would scarcely answer with you

Indian corn, buckwheat, oats, lucerne, cabbage, clover, all sown and cut for fodder are among the best. It is a most important system on farms comparatively small and where there is no pasture ground Its great profit consists in the great quantities of manure it enables the farmer to raise, without much expense.

I should doubt the expediency on any farm where there was sufficient ground good for pasture and good for little else.

AUGUST, 2, 1818—QUINCY.

In countries where "hogs are permitted to run at large," I should put the hedge plants at six inches apart A single row is easier wed;—I apprehend a double, placed in the Quincunx order, is stronger.—My hedges have been generally trimmed in the winter, as the most leisure time—Some prefer the latter of June, or beginning of July.

With respect to "the appearance of my hedges"—I have about a mile in length, of the Washington Thorn, recommended by Mr. Maine—it was planted in 1808. It is generally impervious to cattle, about nine feet high, having always been cut down to five feet—the average growth this year four feet.

I have about a quarter of a mile of the English white thorn. I imported the seed in 1797—it was greatly neglected till about three years past. Its average heighth is now nine feet, and is absolutely impervious to any thing but sparrows. A bull might as soon go through the side of a house.

I think I have told you before, that I greatly prefer the English white thorn to our American hedge thorn, as it is called. The latter has a perpetual tendency to spire upwards, and is made to spread about the lower branches, and near the ground with great difficulty—cattle also browze upon it with less fear, than upon the former. I set out this year about a mile of hedge, and it was of this thorn—I imported it from Glasgow, in Scotland, and it cost me here, all charges included, less than $ 5 per thousand; being seedlings of one year's growth.

I have no question that "hedges are cheaper and more durable" than any dead fences made of wood. But they require attention, perseverance and annual provision against accidents and occasional failure.—Farmers and Planters relent at all cares not included in the old mill horse course, they have learnt from their ancestors; the progress of hedging will be therefore slow.

But the agricultural interest will be deeply indebted, and permanently benefitted by gentlemen who, like yourself, engage in new and wise courses with a temper, which deserves and will ensure success.

It will give me great pleasure to reply to any of your inquiries, being

Very truly, yr. humble Serv't.

JOSIAH QUINCY.

GEO. W. JEFFREYS, ESQ.

The Editor of the Farmer will please insert the accompanying Memorial, and oblige a subscriber and constant reader.

To the honourable the Senate and House of Representatives of the United States in Congress assembled.

The Memorial of "The American Society for the encouragement of Domestic Manufactures."

Respectfully Represents—

That although certain sections of the United States are maritime and commercial, the country is substantially agricultural; and that it is the wisdom of an agricultural nation to give the greatest possible value to the products of the soil This object must be accomplished either by consumption at home, or by sales in foreign markets. Of the consumption at home, that of food is the least important; that of Manufactures, converted from our raw materials by the labour of the country, is of the highest consequence. While a nation is able to give to its agricultural productions the greatest accession of value it is highly improvident to send its raw materials abroad. From the neglect of this principle, all agricultural countries, neglecting manufactures, have had to encounter an unfavourable balance of trade, in their intercourse with those whose attention has been awakened, and policy governed by a due regard to this important source of national wealth and vigor.—These positions are submitted as sound principles of policy for the United States, and are therefore respectfully urged by your memorialists upon your honorable body.

The peculiar state of the civilized world at this time, admonishes us that the foreign trade in provisions, bread stuffs and raw materials, on which we have heretofore relied, must be greatly abridged, if not almost destroyed. In this state of things your memorialists see no resource but in Manufactures, by which the surplus of materials will be consumed in a manner the most useful and creditable to the country and in a form too that will enable this nation to meet, and subdue the rivalry of other countries They also respectfully submit, that there is a crisis in the trade of this country at this moment, peculiar in itself, important in its probable results, and rendered momentous by the sagacity and vigilance, which Great Britain is now bestowing upon it. It is the trade with South America. That part of our hemisphere gives every thing that is asked, in return for fabrics which can with ease be furnished by the United States; and would in itself form an abundant market for all the manufactures which this country can produce for exportation; while the probable extension of its resources, and its demand for the general productions of the United States, could not fail to elevate us above the most commercial nation of the earth. The advantage of an American citizen over a British subject in this trade, in the item of taxes alone, independent of the superior natural advantages we possess, would be decisive, did Congress only mete to this nation one half of the aggregate encouragement to enterprise and industry given to the subjects of Great Britain

Your memorialists cannot refrain from inviting Congress to turn its attention to the oppressive weight of Exchange against the United States, in the trade with England, and the highly injurious consequences to result from it. The cause is too obvious to require comment, and the effects to be produced, may be certainly predicted. They beg leave to suggest the benefits that would accrue to this country, were the capital annually expended in Great Britain for manufactured goods for our consumption, employed at home in the manufacture of the same articles. Such a policy would, in the opinion of your memorialists, produce comfort and abundance at home tend to establish a sound and active currency throughout our country, and lay the surest foundation of an extensive foreign commerce.

Your memoralists respectfully represent to your honorable body, that they espouse the general plan of encouraging Manufactures by the project of a Tariff heretofore submitted to Congress; but should Congress in its wisdom deem its entire adoption inexpedient at this time, they then respectfully submit the policy and necessity of increasing the Tariff of Duties on woolen, flaxen, and hempen fabrics, iron, glass, paper, and fine cotton goods Your memorialists will not venture to designate the rates by which the increase of the Tariff might be graduated as to these articles; they will only presume to suggest, that the increase of duty, and other measures for the protection of our manufactures, should be adequate to produce the effect intended, and which they submit to the wisdom of their representatives in Congress It appears to your memorialists, that as to the articles above enumerated, the present Tariff is graduated at that point which deprives the nation of the public advantages of the system of manufacturing; and that the protection and encouragement is not sufficient to draw out fresh capital, or in any manner to create a competition among our own citizens. If it be a fact that some of the manufacturers of woollens, or other articles, now established, are able to thrive, it is an event highly auspicious to the nation, and will be hailed by every patriotic citizen; while it furnishes the most satisfactory evidence, that Congress can incur no risk in making the system of manufacturing, general and permanent; more especially when the whole system is fortified by that wise maxim of political economy, that it is impossible for a nation to retrogade when it is judiciously and fully employed in the arts of peace.

Your memorialists beg leave further to represent, that the abolition of the credit for duties; a high duty upon sales at auction of all manufactured goods, whether foreign or domestic; and a declaratory law requiring the officers of the customs to charge a duty on the bounties allowed by foreign countries upon articles exported to the United States, as a part of the original invoice value, would essentially advance the revenue of the United States, and promote the objects of this memorial.

The arguments which support the first and second of these branches of policy, are familiar to your honorable body, and those which support the third, are too obvious to require to be detailed at length.

As to credits on duties, we respectfully submit the fact to the notice of Congress, that there is no other country on the globe, within the knowledge of your memorialists, that allows a credit on duties. But your attention is more especially invited to a consideration of the many millions of United States capital, which by this system of extended credits, are rendered unavailing to the Treasury, but most profitable employed in the hands of foreign merchants and foreign manufacturers; it having been ascertained that about three fourths of the manufactured goods imported into the United States, come in upon foreign account.

A calculation of those credits, made on a continued succession of importations, would give results well worthy the most anxious attention of your honorable body.

From the prevailing system of foreign manufactured goods on the consumption of the country, through the medium of auctions, many very serious evils have arisen, which can only be remedied by an act of Congress. These evils have heretofore been detailed in numerous memorials to your honorable body, and we need only point your attention to its ruinous effects on the regular trade of the country; the introduction and distribution, by this means of spurious and similated fabrics; its facility of forcing upon the market the surplus and injured productions of foreign work shops, to the manifest injury of our own manufactures, the means afforded to foreigners to defraud the revenue, and the obviously demoralizing effects of this system of trade in every point of view, without its producing any advantage whatever to the nation.

With regard to foreign bounties, if a check be not put to this system, by the imposition of a duty on such bounties as a part of the invoice value, it may be in the power of foreign countries effectually to evade the revenue laws, and destroy the infant establishments of a rival nation; and no wisdom in the country thus practised upon could avert the fatal effects of such a device.

Your memorialists respectfully represent the fact to be, that the United States are now practised upon extensively in this way.

Your memorialists beg leave further respectfully to represent, that in their opinion the trade in silks, and other fabrics, from beyond the Cape of Good Hope, is peculiarly injurious to this country, and that good policy dictates that there should be a material increase of duties on such goods. And lastly, that the interests of the revenue will be greatly promoted by causing any increase of the Tariff, to take effect forthwith.

With a firm reliance on the wisdom of Congress, your memorialists pray, that your honorable body will take the subject of due protection to National Industry, into serious consideration, and grant such relief, as you may deem proper.

WILLIAM FEW, President.

P. H. SCHENCK, } Secretaries.
C. G. HAINES, }

On the equitable principle—*audi alteram perteme*, we shall present in our next, *the other side* of the picture from the pen of a distinguished member of the Board of Trustees of the Massachusetts Agricultural Society. *Edit. Am. Far.*

FOR THE AMERICAN FARMER.

Defence of the Weeping Willow.

I was sorry to see in your paper, No. 41. vol. 2d, a deadly blow, aimed at my favorite tree, I mean the Babylonian Willow. When I reflected, on its being the sacred costodiator of the dead. "The willow waving o'er the stone," and that it was admitted in miniature forms to the very pulse of the heart, embellished with pearls and gold, as a sacred emblem, I hesitated not to consider its standing as coeval with time. How great was my surprise to find it charged with producing noxious vapours, sickness and consequent death. You will excuse me therefore in saying a few things in its defence, and let the javelin of death fall where it is due.

In the first place then, I may remark that the willow grows most thriftily in low damp grounds, and is planted almost always in such places, which are generally unhealthy. Let not the willow which in part corrects this humidity by its great absorption of waters, bear the blame of the soil. It must be granted that the willow throws off more trash, than some other trees, but this is not more unhealthy, yet it is much easier removed by a rake than most other kinds. Let not then the willow bear the blame, that should be bestowed on laziness or uncleanliness. In the next place I assert that the willow as a genus furnishes us with the very best substitute for Peruvian bark of any known vegetable (not excepting the red wood or *cornus seriaca.*) I ask then in the name of chemistry, botany, and medicine, how can the effluvia of so salutary a tree be noxious? Chemistry ranks all trees nearly alike, as to the gasses, there can be no suspicion from those and we may say with the late Dr. Huchinson, (a good chemist,) "from the fragrant rose to the deadly night shade, all conspire in renovating the air," and I may add from the lofty poplar, that bathes in the clouds to the lowly willow that laves in the stream.* Dr. Rush has said something in his first works or lectures about low places, near Philadelphia becoming more unhealthy by removing the trees. Some few trees may be suspicious even in this clime, where we are not in danger of touching the Manaheneal of the west, or the Bohan—upas of the East Indias, but they are not introduced about houses.—the Rus Vernex, or poison ash is suspicious—and I think I have read in the New York Medical Repository a paper charging the Prevet hedges, which the first settlers introduced into Jersey with injuring the health of the inhabitants. The effluvia of trees, may be summed up as follows: the gasses—secondly, the permanent essential effluvia of the leaves and body—thirdly the adventitious volatile effluvia of the flowers:* of the first I defy chemistry to give us any predeliction—as to the second, it is a mere matter of taste, so that one may prefer the walnut and hickory, and another pines and cedars whilst either might be unpleasant to a third, but their light flavors cannot be injurious but by disgust. All very strong essential smells are somewhat injurious I presume where they are so close or powerful as to command the nerves: and hence the third kind proceeding from flowers is often injurious as has been proved from flowers in close rooms. I think therefore that orchards too near a house are injurious, and the chesnut tree in bloom or the locusts may do ten times the injury of willows. Trees without odoriferous flowers are therefore preferable. The hedge above mentioned not only commands the olfactory nerves whilst in bloom, but on decay stinks with the myriads of rose bugs that feed in general upon them.

ARBORIPHILLUS.

* Trees expine oxygen, in the day with few exceptions, and not a sufficiency of other gasses at night to make a deleterious compound.

* The essential effluvia of most leaves and trees, may be distilled as spirits of turpentine from pines—oil of Sassafras from Laurus Sarsopes, but the effluvia of flowers can seldom bear the fire without their destruction. It is said that the French get the finer essences from Jessamine, by laying the flowers between flocks of cotton that have been oiled with the oil of Bene, which extracts and retains the effluvia. The valuable oil or attar of Roses is a secret preparation which I believe is not obtained from the flower petals, but from the calyx, just before the flower expands.

FLAX.

From the New-Jersey Eagle.

☞ The following interesting and important communication is earnestly recommended to the attentive perusal of our readers.

Mr. Kinney.

I beg of you to publish the following information, in answer to the many inquiries made by letter and otherwise in relation to the cultivation of flax, to enable the farmer to prepare for the ensuing season.

The land upon which I cultivated flax the last season was reclaimed salt meadow lying opposite Newark—From the experiments made the last year, and the best information I have been able to obtain from practical farmers, and writers on husbandry, I recommend the following course to be pursued——

1. Sow your seed at any time between the 20th April and the 10th May.—Last year I began as early as the 30th March and continued until the last week in May, but the lots sown between the 20th April and 10th May were the best—the difference of climate must necessarily regulate the time of sowing, which a little experience will soon teach.

2. Change your seed:—never sow the seed grown on the same soil—and above all, get clean seed—I know an instance the last season, where the Mill-berry or Negro-head, as it is generally called, destroyed a whole crop. It will pay well to get your seed from R. M. & J. Russel, flax seed merchants, in New York, corner of Broad and South streets, near the White Hall.——

3. If you wish to raise a crop of *fine flax*, which will pay better than a crop *for seed*, sow as near as may be, 2 bushels to the acre.—If for seed, then from three pecks to a bushel—I would recommend to every farmer that can do it, to raise at least ten acres in flax; to sow 8 acres at the rate of two bushels per acre, and the remaining two acres for seed—he can then at another season, change his seed with the flax seed merchant—sow clover, timothy or other grass seeds with your flax seed.—

4. If you cultivate for *fine flax*, then as soon as the Bolls or Capsules are formed and while they are yet in the milk, the crop must be pulled and spread thin upon the ground. If the flax is left to grow till the seed is ripe, the harle or fibre is too coarse to make fine linen, and cannot be made as white by bleaching.—If you cultivate for seed, pull your flax as soon as the leaves begin to fall, and the stalk shows a bright yellow colour and the bolls are turned a

little brown—when the flax is lodged it should be pulled immediately, and great care is to be taken in sorting the different lengths, to prevent waste in dressing and hacking or hetcheling as it is called.——

5. The crop after being pulled and spread thin on the ground, must be turned from time to time until it is quite dry—If it is put up green or damp or the bolls not perfectly dry, it will not clean so well, and is liable to ferment and injure—you will hasten the drying of it by standing it upon the butt, loose; and turning it occasionally inside out.

6. The crop when sufficiently dry, should be tied up in bundles or sheafs and taken to the barn or other place to be kept dry.—Each bundle should weigh about two pounds, particular attention should be paid to this, for it will facilitate the dressing, as the machine will take thro' at one time, a bundle of about two pounds weight spread out thin, and three of those bundles in a minute, the tender of the machine therefore has very little time to regulate the size of his bundles——

7. The flax thus prepared is dressed in a machine *without rotting or wretting*, and when dressed can be rendered by every farmer's wife, perfectly white, resembling floss silk, by following the directions that will be given—the machine will dress hemp and flax wretted or unwretted, and hemp at present bears a good price.

8. A greater quantity of flax is obtained in this way, so that the owner of the machine is able to give the farmer as much clean flax as he can procure in the old method, the flax is stronger because unwretted, and one moments reflection will show the advantages that result to the farmer—he gets as much flax as he can get in the old way—he saves the labour of wretting, and avoids the risk of ruining his flax, and also the labour of cleaning it. The flax is better, and rendered fit for immediate use, without bleaching in the old way; and if the farmer has any to sell, will readily bring him one third more than the flax prepared and cleaned as heretofore done.

9. I remark, that your land, if in good condition, will yield an average of one and an half tons of plant or stem, and without it is in good order, ought not to be sown with flax. There is a market at Patterson, for more than New-Jersey can raise, beyond what is required for family purposes. You ought not to manure your flax land in the spring, except with lime, marl, shells or leeched ashes—*top dressings* soon after the plants appear, of plaster, where it will answer, and of ashes or soot, are said to be beneficial; and an experiment in Connecticut has proved, that salt, at the rate of 5 bushels to the acre, is a good manure. I think more would be better. Some of the best flax I had the last year, was sowed on a *green sward*, there were fewer weeds, which are the great enemy of flax.

10. As to the profit in cultivating flax, take the following statement:—Suppose each acre to yield 1 1-2 tons. The owner of a machine can afford, when flax brings 15 cents a pound, to give 15 dollars a ton for the flax plant, as it comes from the field, threshed or not—say then that ten acres produce 15 tons of flax plant at

$15 per ton is - - -	$225
Deduct, at the rate which I paid in cash, (the farmer saves it by his own labour.)	
Ploughing 10 acres, and sowing 20 bushels of seed, harrowing, &c. at $3 per acre.	$30
20 bushels of seed, at $1 50	20
Pulling and spreading, at $3	30
Drying, bundling and carting to the barn, at $1 50 per acre, - -	15—105
Leaves clear profit on 10 acres,	120

That is, $12 per acre. Can the Farmer make as much out of any other article?

ANTHONY DEY.

New-York, Nov. 30. 1821.

Management of Pigs.

The following items on the management of *Pigs*, are extracted from a private letter from the pen of one of the most accomplished gentlemen and systematic farmers, in the state of Massachusetts.—May 29. 1819.

"I have sent by the bearer the three pigs for your Baltimore friend, the white male and female are the Byfield breed; the spotted female, Byfield and Bedford, with a small cross of the Bakewell—the latter I consider, as having an equal disposition or propensity to fatten, with a hardiness of constitution that is wanting in the Byfield breed. I have thought them better nurses, and more prolific—you wish me to give you my method of treating them, which I presume is similar to that of persons generally in this part of the country and is as follows, viz after they are farrow'd, the dams are fed with the wash or swill from my house; and from the house occupied by the men that work on my farm, mix'd with boil'd potatoes, skim milk and butter milk, stirring in meal and bran. when the liquor is quite hot, good wheat Bran or Shorts I prefer very much. When five or six weeks old (sometimes sooner) they are taken from the dams, when they are fed principally with skim milk, butter milk, and bran or shorts occasionally mixing some of the pot liquor, as it is often called—once a fortnight they are wash'd clean with the soap-suds left on washing days; that practice is continued for three or four months, when they become too large to handle with ease, after that, during showers in warm weather they have fine wood ashes sifted on them, and thrown between their legs, which becoming wet makes a ley that induces a disposition to rub themselves clean and white, keeps the skin loose, and very much promotes the growth—they are well litter'd with straw in their lodging rooms, kept dry, and in cold weather shut so close as to keep out the cold wind and rain—they are fed regularly, made to eat clean, never gorg'd—their food salted when not composed in part of pot liquor, in which salt Beef and *Pork* have been boiled; after I commence fattening them in the fall of the year, they have once a month a table-spoonful of Brimstone pounded fine, to each pig, and a month or six weeks before they are killed, they are fed with scalded Indian meal thick as for hoe cakes, and hard and whole corn, which serves to harden the pork, and is thought to improve the quality. In summer and during the season for weeds, they are fed with them, and occasionally with Lettuce, of which they are fond, this serves to keep them in health and promote their growth.

I remain respectfully,
your humble servant,
G***** P******.

"The Agricultural Society of Montgomery County, Maryland."

Rockville, January, 19 1822.

Sir—Agreeably to a resolution passed at the last meeting, of the Agricultural Society, of this county—I enclose to you a copy of the constitution which has been adopted, together with a list of the officers appointed by the Society.—You will oblige the Society, by giving it a place in the American Farmer.

I am sir in behalf of the board, your obedient servant, ARCHIBALD LEE,
Corresponding Secretary.

The undersigned citizens of Montgomery county, being duly impressed with the importance of promoting improvements in Agriculture and rural economy, have associated under the title of "The Agricultural Society of Montgomery county, Maryland," and for the government of the same have adopted the following constitution:

Article 1st. All citizens of the county shall become members of the Society upon paying not less than one dollar to the treasurer and subscribing these articles, and every member shall pay not less than one dollar an nually. All monies received by the treasurer shall be disbursed by the president and vice-presidents or a majority of them, in pursuance of appropriations by the board.

2nd. The officers of this Society shall consist of one president, four vice-presidents, and twenty-four curators, one treasurer, one corresponding secretary, and one recording secretary Thereof one vice-president, and six curators, shall be selected from each of the present election districts, who shall forthwith organize themselves into a board to be denominated "the board of the Agricultural Society of Montgomery County, Maryland."

3d. The board shall meet at Rockville quarterly, on the first Mondays of January, April, August, and November, to which meetings every member of the Society shall have access. In the absence of the president the senior vice-president present shall preside, and eight members shall constitute a quorum.

4th. The stated meetings of the Society shall be at Rockville, on the first Saturday after the second Monday in November, and on the first Saturday, after the first Monday in March, in each year.

5th. All officers of the Society shall be elected by ballot at the November meetings, and all vacancies shall be filled by the board.

6th. The president shall have power to call special meetings of the society by notice through the secretary at suitable public places in the county. And each vice-president shall assemble the curators of his respective district, at

such time and place as he may designate, at which meeting the senior curator shall preside in the absence of the vice-president.

7th. All honorary members shall be appointed by a majority of the whole board.

8th. Whenever the board deem it expedient they may purchase an Agricultural Library for the Society to be deposited with the recording secretary

9th. The corresponding secretary shall reduce to form, all reports that may be made to the board for the Society, correspond with other Societies and individuals on all objects of this institution, and transmit notices of all honorary appointments.

10th. The recording secretary shall attend all meetings of the Society and of the board. He shall keep a faithful record of their proceedings and preserve in order all papers placed in his care by the president or the board. He shall take charge of whatever the curators may place in his hands, and keep a record of the names of the subscribers, as well as of all members of the Society.

11th. The treasurer shall keep a faithful account of all sums of money received, either from members or contributors, with a list of their names and places of residence, a regular account of monies expended with receipts therefor, furnish such accounts for the inspection of the board at each quarterly meeting; and to the Society, when so required, at their stated meetings.

12th. The curators shall collect such local information as they deem useful, specimens of grains, seeds, plants, manufactures, and whatever they may deem important, and they shall lodge the same with the recording secretary for the inspection of the Society. They shall, at the spring meeting report from each district upon the composition of manures most in use, as well upon those most easily made, upon the materials favorable for manures, upon the soils, upon the natural growth of trees, plants, herbs and grasses, and upon minerals, streams of water, mills to be relied upon for supplies in dry seasons, and upon the grasses, seeds and implements of husbandry generally in use, and those they most approve, upon the dairy in all its branches, upon fencing and enclosures of wood, brick, stone, hedges, &c. and upon gardening generally. At the autumn meetings they shall report upon the crops, fruits, seeding, spring and fall preparations of the soils, top dressing of grains, and grasses, upon the most approved keep of domestic animals during the seasons, upon earths, and manures, animals, vegetables, and minerals upon the management of crops, gathering them in, and the most economical mode of conveying them to market, upon the roads and other facilities for transportation, upon Horticulture and rural economy. They shall also report at both autumn and spring meetings, upon the best systems of husbandry used in their respective districts, including cleaning, draining and irrigation of up-lands and low-lands. The board shall designate the periods and places of fairs, the articles to be shown, and the premiums to be given. They shall appoint three judges for each class of articles, whose decision shall be obligatory.

13th. Any citizen of Washington county, (D. C.) may become a member of this Society on the conditions specified in the first article.

14th. All propositions for amending this constitution shall be laid before the Society at a stated meeting, and referred to the next stated meeting, and the corresponding secretary shall give notice thereof, to the vice-president, and curators of each district, and if approved by three fourths of the members present at the meeting to which it is referred, it shall become part of this constitution.

Roger Brooke, *President.*
Charles J. Kilgour, 1st. *Vice-President*
Thomas Davis, 2d. do. do.
Basil Brooke, 3d. do. do.
Thos. T. Wheeler, 4th do. do.
Arch. Lee, *Corresponding Secretary.*
J. M. Leach, *Treasurer.*
Ladock Magruder, *Recording Secretary.*

Goshen Curators.
1st. Ephraim Gaither,
2d. Edward Burgess,
3d. David Frame,
4th Lyde Griffith,
5th Rhemus Riggs,
6th J. W Magruder.

Berrys Curators.
1st. Bernard Gilpin,
2d. Thomas Gettings,
3d. Thomas Stabler,
4th Henry Howard,
5th, R. Y. Brent,
6th R. B. Dorsey.

Medleys Curators.
1st. William Dorne,
2d. Elijah Veevs,
3d. Daniel Trundle,
4th Solomon Davis,
5th E. W. Williams,
6th James Fletchall.

Rockville Curators.
1st. G. C. Washington,
2d. Honore Martin,
3d J. C. Lackland,
4th George Magruder,
5th Thos A. Brooke,
6th Samuel Hamilton.

On the Cultivation of various Artificial Grasses.

Inquiries have frequently been made of me respecting the culture of grasses, preparation of the land, times of sowing, quantity of seed, &c. and believing as I do, that the wealth and prosperity of most parts of our state, much depends on the culture of artificial grasses, and not having had less than from 60 to 100 acres of artificial grass, growing for the last 17 years, has afforded me an opportunity of making some observations, which may be of use to our Young Farmers.

RED CLOVER.

The culture of this valuable grass is so generally known, that it may seem superfluous to give any instruction on that head, but as the right understanding and culture of this grass, is so important to the Farmer, and as many are entirely unacquainted with it, I thought I might in a concise way touch on the heads necessary to its cultivation.

Previous to sowing this grass seed, have the land well pulverised by the culture of some previous crop, or frequent ploughings, until the native grass is entirely destroyed, then take five or six quarts of good clover seed to the acre, and sow it any time between the 15th of February and the same time in August, on crops of small grain, or a one, two quarts less of seed will do as well, if sowed with one of Bennetts Drills. If the land is poor, chuse the crop that will afford it the best protection against the sun, as rye, &c. and if rich, the crop which will smother it least in its infancy as wheat, oats, &c. they being slow of growth, if sowed after the middle of March; the seed should be harrowed in with a pair of light harrows, particularly when sowed with wheat or rye, as the ground is often settled together, and requires loosening, which is a benefit to the grain crop, and covers the seed, which would otherwise, in many cases, be lost. As there has been of latter time, great complaint of clover failing, or not standing as usual, I think it may be accounted for in two ways. First, the years 1819 and 20 were very unfavourable both in winter and summer, to the growth of clover, but we have no reason to be discouraged on that account, for the last summer the clover stood and grew as well as ever. Land which has been clovered and plastered for many years, becomes rich and full of grass roots, which the the former rotation of crops does not sufficiently eradicate, consequently prevents this tender tap rooted plant from thriving, and it has been found by experience that by cultivating almost any plant long on the same spot, it will exhaust nearly all the food necessary for its support, but would at the same time produce luxuriant crops of something else; hence the necessity of change; this is a subject long since well understood in England, and by many in this country, though they consider clover the most valuable of all their improving crops, yet they have to discontinue its culture a while when they discover the land to be what they call clover sick; an increased attention to manures or turning in green crops to enable us to take off one or two more root or grain crops in our rotation, will I think, enable us to raise clover as usual—the choice of seed should be carefully attended to, as by stacking it when in the straw a little too damp, the vegetating qualities may be destroyed, which is not often observed by those unacquainted with the circumstance, and foul seeds, such as the Daisy or Richardson's pink and ripple grass—the former is by far the worst, being very injurious to both grain and grass, but the latter is only injurious to hay, and is esteemed and even sowed in some places for pasture.

There is a species of clover, called the tall or sapling clover, which has the appearance of the common red, but is much taller and coarser, ripens about two weeks later—except its coarseness, (which may be corrected by sowing six or seven quarts of seed to the acre,) I prefer it to the common kind for sowing with timothy, as they ripen together, and for improving poor land, it is much the best, as it affords a greater covering to the land, and more enclosing particles.

The quantity of seed above stated, is founded on the supposition, that it is all covered either by harrowing or by the winter frosts.

Timothy is a valuable grass, makes good hay for horses, but for cattle it is too dry and binding, is best suited to stiff moist lands but will grow well on high mellow land provided clover is sowed with it, as it retains the dew long and preserves the timothy from the drought and heat which would otherwise affect it.

This seed may very properly be sown on oat or rye at the time of sowing clover, by mixing four or five quarts per acre with it, but would be a surer crop if sowed in the fall—

If a permanent meadow is to be set, I have thought this crop of sufficient importance to prepare the ground purposely for it by ploughing early in the spring and stirring it several times during the summer to pulverize the soil and destroy all the native grass, then sow about four or five quarts of good timothy seed to the acre, any time between the first of August and 20th of September, and harrow with a pair of light harrows as before. great care is necessary in procuring this seed as the germ being small and the hull or chaff large easily attracts moisture, which often produces fermentation. and destroys the germ the best judges are sometimes deceived.

ORCHARD GRASS.

This grass looks much like timothy, except the head which divides into a number of little stems like blue grass; it is coarser and taller than the timothy, unless sowed thick which is a necessary precaution; it may be profitably sown with clover as they come early and ripen together, and by not pasturing it too bare in the fall, produces in the spring the earliest pasture of any grass we have,* and is much esteemed by those who keep Daries for producing early grass butter, it has a large chaffy looking seed; but the light particles may be blown out, it will be necessary to sow from three fourths to one bushel of clean seed to the acre to be profitable; the land should be prepared as for timothy or clover, and may be sowed on wheat or rye, either in the fall, winter or spring, but in the spring or fall it must be harrowed in; it may be also sowed with any of the spring crops as oats and barley; but if sowed in the fall not later than the 20th of September. I have cultivated it with nearly equal success, both fall, winter, and spring, and have had it on my farm about seven years, and think it very suitable for a change occasionally, but the land ought to be rich enough to produce at least five barrels of corn per acre.

MILLET.

Many persons of respectable standing have written very encouragingly about the profit and usefulness of this grain or grass, one of whom is Dr. Coleman of Virginia who says a bushel of seed will weigh about 53lbs. and separated from the bran will weigh 40lbs. and more nutricious than the same weight of Indian corn: an account published in a Philadelphia paper states the produce per acre to be about 40 bushels of seed and four tons of hay; the right time of sowing is said to be about the first of May. I have not yet sowed any, but have frequently seen it growing, and am inclined to think favourably of its culture, especially as a spring crop. on lands intended for wheat in the fall, as it may be harvested in August. In this neighborhood I should suppose the best time to sow to be about the 20th of April, on ground well prepared and of fertility equal to producing six barrels of corn per acre, on which I would sow about ten quarts of seed, this I think is not too thick if hay is the object, but for seed eight quarts are sufficient. I am well satisfied that the hay is preferred to timothy by horses, but it is difficult to cure in wet weather.

ROBERT SINCLAIR.

* Except lucerne or meadow oats; the former requires drill husbandry except in sandy lands, and the latter is rather coarse for hay.

MORE BACON.

Mr. Skinner,

Having had considerable experience, say nearly half a century, in all "the manipulations," (as Dr. M——e would probably call them) usually exercised upon that most delectable viand denominated "Bacon"—from the killing, cleansing, cutting out, salting, packing, curing, and what is better than all, masticating it, I believe myself tolerably well qualified—although there may be some vanity in the declaration, to speak "understandingly," on the subject. Know then, my good Sir, that your correspondent, Mr. John Darby, run the highly culpable risk of spoiling, or rather causing others to spoil, a quantity of that article which consitutes the staple dish of the Ancient Dominion. He is the less excusable in this particular, because he writes so feelingly on this subject, that I am confident he must be not only an amateur, but one of the cognoscenti both in making and eating Bacon.

The neglect for which I now arraign him before all the lovers of Bacon in the United States, is his failing to caution you that if it is packed "in hickory ashes," *they* must be *drawn-ashes*, or as sure as you expect, Mr. Editor, to have Bacon for your Christmas Dinner, these ashes will "eat up" (as the old ladies call it) a great portion of the fat in every piece and extract, at least a part of that precious essence which titillates so exquisitely the papillæ of the tongue; and is far superior to all the oils that ever were discovered. In other respects, Mr. Darby's receipt is very good, but unnecessarily troublesome; for among all the varieties of Bacon, Burlington and Westphalia inclusive, which my grinders have ever aided in discussing, the best I ever tasted, was packed in what the old Virginia ladies called "meat tubs," and suffered to remain in the first brine until taken out to smoke. I have eat it more than two years old, as good as it could be, and the management has been what I have just stated. The best salt-beef also, which I have ever seen, was put into the aforesaid brine, as soon as the pork was taken out.

VIRGINIANSIS PHILOPORCUS.

December 21st, 1821.

RECIPES.

An excellent Recipe for curing Hams.

For ten Hams; one pound of Saltpetre, two pounds brown sugar, three and an half pounds of fine salt; mix all these together, and rub each ham well with it, then pack them down in a tight cask, and let them so remain for three weeks. Then make as much strong pickle as will cover the hams; to which add three gallons of ley; boil and skim this pickle, and when it is cool, pour it over the hams, and let them remain in this pickle for three weeks more, then drain them and smoke them with green hickory.

Another.

For twenty-four hams; six pounds fine salt, three pounds brown sugar, or three pints molasses, one pound saltpetre; mix all these ingredients together, and rub each ham well with them. Pack them down in a tight cask, and let them lay five or six days, then take them out, turn them, pack them down again, and sprinkle them lightly with salt, let them remain five or six days more; make a pickle strong enough to bear an egg, cover them with it, let them remain a month when they will be fit to smoke.

Another.

Four ounces saltpetre, one pound brown sugar, eight pounds coarse salt, four gallons water, boil the whole together, and take off the scum as it rises. When the pickle is quite cold, pour it over the hams, and let them remain in it eight weeks, when they will be fit to smoke.

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 1, 1821.

The printer, is just completing the republication of the first and second volumes, of this Journal, to supply the increased demand—as well as to replace the volumes, destroyed by the burning of the Book Bindery. To enable him to meet this expense the Editor, intreats the immediate discharge of all arrears by those to whom the work has been sent, in the assurance and on the confidence of immediate payment. Their compliance will moreover at this time be received as a gratifying evidence of their approbation of his labours. The Editor never desired the patronage of any who may imagine that they are not fully compensated by the contents of the work, neither does he think it generous or fair that any should avail themselves of its contents, without paying for them *in advance* that being *expressly stipulated for*, before they subscribed, and it is obviously more reasonable that an *individual*, should risk five dollars on the promise of the Editor to pay them value in return—than that *he* should run the risk and incur the expense of collections from all his subscribers—having in the mean time, to pay the printer and the paper maker their money from week to week. If he could find adequate terms, the Editor would endevour to express his profound gratitude to the numerous subscribers, and correspondents who have paid him faithfully, and contributed, he might say almost every thing to the value of his Journal.—It is to *their* punctuality and to their *communications* almost exclusively, that he owes the honour of the following recent declaration by a senator of the United States, distinguished as an enlightened politician, practical Farmer, and in the worst of times—*every inch a patriot*. "I rejoice to find that this work, is so highly appreciated—It is becoming the *focus* of the scattered information and improvements in Agriculture. I hesitate not to say that its countenance and general circulation will be a national blessing, and that you as the projector, and permit me to add the judicious Editor, are entitled to the thanks of your country"

Printed every Friday at $4 per annum, for JOHN S. SKINNER, Editor, by *Joseph Robinson*, at the N. E. corner of Market and Belvidere-streets, Baltimore, where every description of Book and Job Printing is executed—Orders from a distance for Binding, with proper directions, promptly attended to.